Catalogue "B"

... Metallic Book Shelving ...

... For Libraries ...

Designed and Patented by George Stikeman

Sole Manufacturers

George Stikeman

~~... H. B. & W. C. Westervelt ...~~

Ornamental Iron Workers

..... ~~103 Chambers Street, cor. Church~~ 55 West 26th St. ..... New York .....

Avery Architectural and Fine Arts Library
Gift of Seymour B. Durst Old York Library

Adjustable Book Shelving For Libraries

Designed and Patented by George Stikeman

Stratford Library, Stratford, Conn.
Wm. H. Miller, Architect, Ithaca, N. Y.

Sole Manufacturers

A. B. & W. T. Westervelt

Ornamental Iron Workers

No. 102 Chambers Street, New York

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AVERY

Introduction

THE past ten or more years form an era of unparalleled activity in the formation of Libraries, their methods of keeping records, ways of classification, and in useful devices for shelving, all of which have made the Library most beneficial to the general public as well as to the special classes.

Every one interested in the subject of education will note with satisfaction the progress in this direction. The Library is the most important link in that great movement that has spread hither from England. We refer to the University and School extension, which has for one of its best results the ability to draw readers to the use of the modern Library, that store-house of all human learning.

From the latest reports obtainable of Libraries containing 1,000 volumes and over, in this country, there are no less than 31,171,354 volumes possessed by 3,804 different Libraries, or an increase of 66.3 per cent in six years. Nor has this development reached its maximum, for Libraries still continue to make further advances both in method and numbers. With all this enormous collection of knowledge in books and taking into account their monetary value, the time seems opportune that due consideration should be shown for their proper care and preservation. With this object in view, the question of Fire-Proof shelving, now so universally used in modern Library buildings or where older structures are being remodeled and improved, suggests itself. This subject has been thoroughly considered by Mr. George Stikeman, the designer and patentee, who has long been connected with our firm, and his Systems we now present to Librarians, Architects and all others interested in Library work.

The undersigned, after many years' experience in the construction of iron work, have full facilities to manufacture and erect these Systems, under Mr. Stikeman's personal supervision, and will gladly submit plans with suggestions, also estimates of cost, for the proper arrangement of shelving where fire-proof, or partially fire-proof construction may be desired. Correspondence from Architects, Trustees, Committees or Librarians, having the erection or remodeling and enlargement of Libraries in contemplation, is respectfully requested. We append a number of photo-prints taken direct from stack work erected by us, in various parts of the country.

~~A. B. & W. C. Westervelt~~

Geo. Stikeman

General Considerations of Stack Building

THE most economical method of shelving books, is in the form of a double stack, and lighted by a window at ends of each separating passage or a skylight above.

The use of roughened plate glass through passages for conveying light, can be employed to advantage in stacks two or even three tiers in height; when stacks are more, each tier should be furnished with side light.

Either slabs of slate or white marble, rubbed on upper side and polished beneath, to facilitate the reflection of light, are sometimes preferred to glass. Cast iron perforated flooring is also frequently used.

For illumination at night or when natural light is not obtainable, the incandescent electric light is to be preferred in every respect, and may be so arranged to illuminate the whole or any portion of the stacks. Arrangement should be made for carrying the necessary electric conduits.

Stacks should be arranged in double faced form, parallel to each other and at right angles to the walls admitting light to building.

The shelves of our various systems are of uniform size throughout and adjustable to any height desired, these may be varied in length and width to meet all requirements, the average length being 3 feet and from 8 to 12 inches in width. The width of passages between stacks may vary from 2 feet 6 inches to 3 feet, although wider spacing is found preferable at times. Wall stacks can be used when desired.

As to the distance from tier to tier, that may range from 7 feet to 7 feet 6 inches, the former height, however, being the most convenient. When shelving is required at an extreme height, a noiseless folding trolley ladder may be employed.

It is well to have an opening of two or three inches in width, on either side of flooring parallel to stacks (as shown by figure Nos. 3 and 4, page 10) for light and ventilation, as well as a means of communication between tiers. If necessary, these side openings can be covered with wire netting or gauze, having hand spaces at either end. Fire pipes may also be carried through these side openings, with nozzle and plug at intervening tiers, if considered advisable.

Raised flanges along edges of flooring, will serve as a guard when cleaning is necessary.

A metal covering over stacks at each tier level, will protect the books beneath from dust.

Windows in stack room should be of one pane, thus securing all the light obtainable.

In large stack rooms an elevator, having a capacity sufficient to carry one or more persons, with a load of books and operated by the passenger, is desirable.

Book lifts or carriers, conveniently located, running from tier to tier, will serve as a labor saving apparatus.

One or more stairways to each stack, constructed of iron and in close proximity to the delivery desk, serve as a means of communication between tiers. Rubber treads are an improvement on iron or wood.

The matter of heating (hot water is preferred) is best effected by means of radiators, placed directly beneath the stack room, the heat being passed into the stack room by the use of registers, which circulates freely through the side openings of flooring, thus producing an even temperature throughout.

For prompt communication from Librarian or delivery desk, to assistants in various parts of the stack room, a system of electric bells or speaking tubes will be of service. These can easily be attached to any of our various forms of stacks.

Medal Award for the Stikeman Book Stacks, World's Columbian Exposition, 1893

. . . Stikeman Adjustable Book Shelving . . .

THE complete construction of the Stikeman "Adjustable" Book Shelving in detail is described by Figure Nos. 8 and 9 on page 13. The system consists of a series of supporting standards for mezzanine flooring, spaced the length of a shelf between centers, together with the necessary adjustable shelving in combination.

The standards are composed of two patented steel **T** bars—E E—having elongated tables, between which is placed a steel separator—F—all flush riveted. On outer edges of the steel **T**'s are a series of pierced notches, accurately spaced and of equal dimensions. The footings—G—at main and mezzanine floor lines, consisting of steel bases, are secured to standards by riveting.

By means of the lateral cross stay—H—extending from standard to standard and being at right angles to mezzanine steel **T** beams, a perfectly locked construction is obtained at floor levels. With this method of construction, the stacks and necessary floorings may be extended to any height desired.

On shelf bracket—J—having rear brace and right angled flanges by which the shelving proper is sustained, are two steel projections extending from their outer sides, so spaced as to fit the pierced notches of standards. These

projections being in direct line, firmly secure the shelving in position without the aid of any loose or movable pins, wedges, or parts whatever, as the standard and portable shelf form the entire combination. By this adjustment the shelving can only be removed from the notches by an upward and outward movement. It will be seen that all shelving with end brackets form an adjustable compartment which may be changed without disturbing or removing the books arranged upon it. In case of fire this advantage is obvious.

As the shelves in each compartment of a double stack are uniform in size, by arranging them in alignment a double width shelf is obtained, and their close adjustment to any desired height admits the shelving of books varying in size. Either one or more shelves may be removed, interchanged or re-adjusted without disturbing the other shelves or their contents. The spacing between shelves being brought to a minimum, it may be said that the shelving is continuous throughout.

Should space be required for a table, closet, set of drawers, etc., by the removal of shelving from any section, such necessary space is obtained.

When thoroughly fire-proof construction is required, metal shelving is necessary. These can be furnished in steel having a plain surface, parallel steel bars forming an open grating, or a series of parallel, convex and concave steel channels. Slate, marble or glass shelving may also be used for the purpose

For semi-fire-proof construction, shelving or polished wood is most satisfactory for general use. End brackets may be ornamental or plain in design and made in castings or planished steel. The method of combining bracket and shelving is shown by Figure No. 8, page 13, the shelf being set at bottom of bracket. A series of wide shelving in the lower portion of any tier are often found to be convenient. The top shelf will serve as a ledge where books may be allowed to rest.

In smaller libraries, where stacks are not required more than one tier in height, the "Stikeman" systems admit of a stack being constructed independently. Ornamentation can be used to any degree, and end facias, bases, top cornices and covers may be added for special or prominent positions.

A variety of methods present themselves as suitable finishes for stack work, as painting, bronzing, enameling or electro-bronzing. The treatment by means of a composition known as "dull finish" is very satisfactory, as a perfect smoothness is obtained on all parts of stack coming in contact with books. The structural parts of the system being composed entirely of small sections can easily be disconnected for removal.

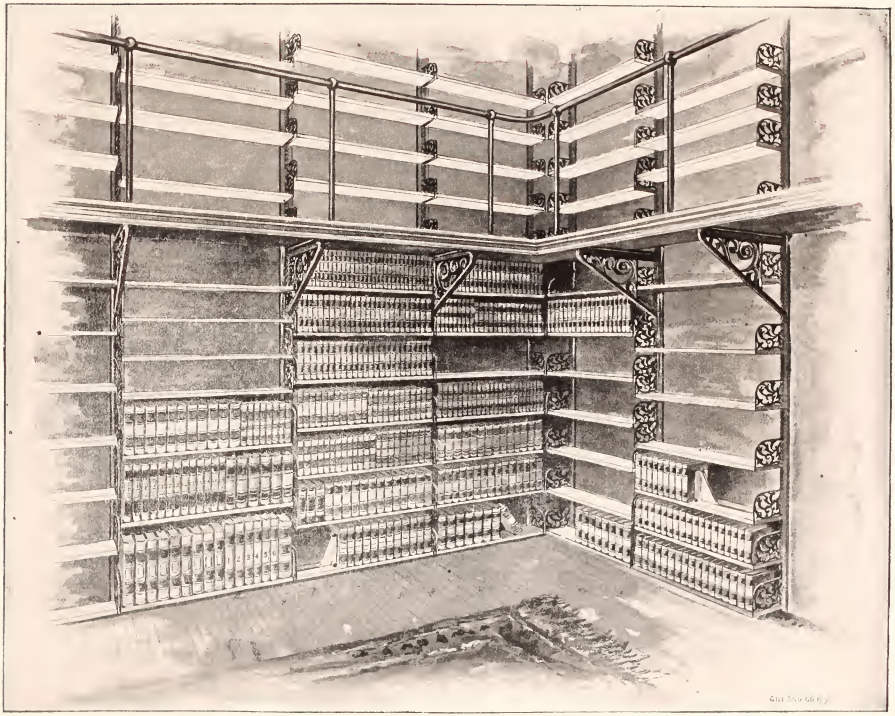


FIGURE NO. 1.

The Stikeman Adjustable Book Stacks

For Side Walls where Stack and Reading Room are combined. Galleries can be utilized and connected with main floor by straight or circular stairs. This method is well adapted for use in colleges or academies where students have unrestricted access to books.

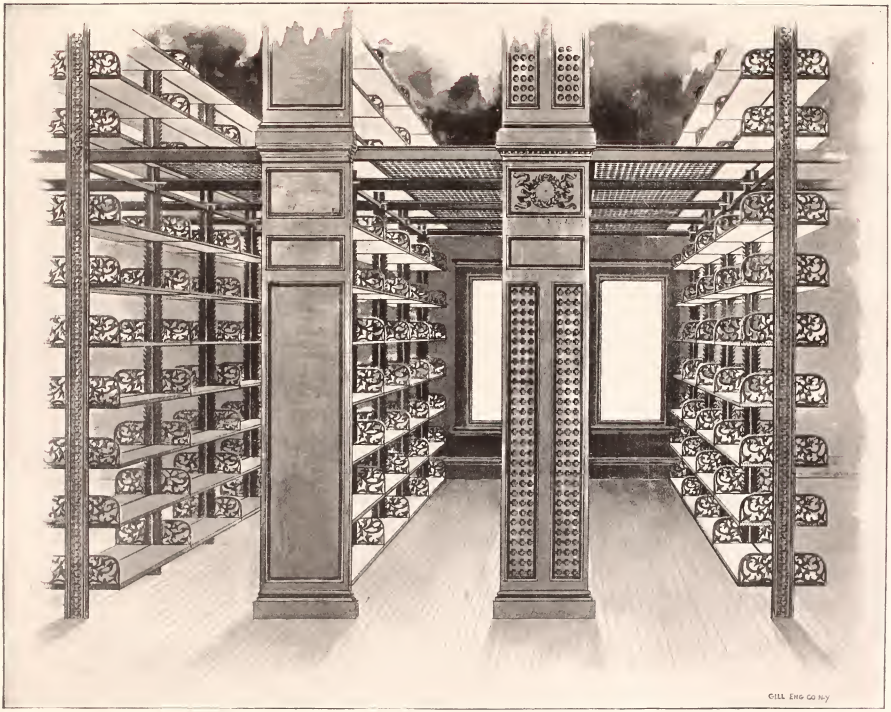


FIGURE No. 2.

The Stikeman Adjustable Book Stacks

Arranged with passages or alcoves Furnished any length required with shelving of suitable width. Ends of stacks facing aisles are finished with brackets or with plain or ornamental facias full width of shelving.

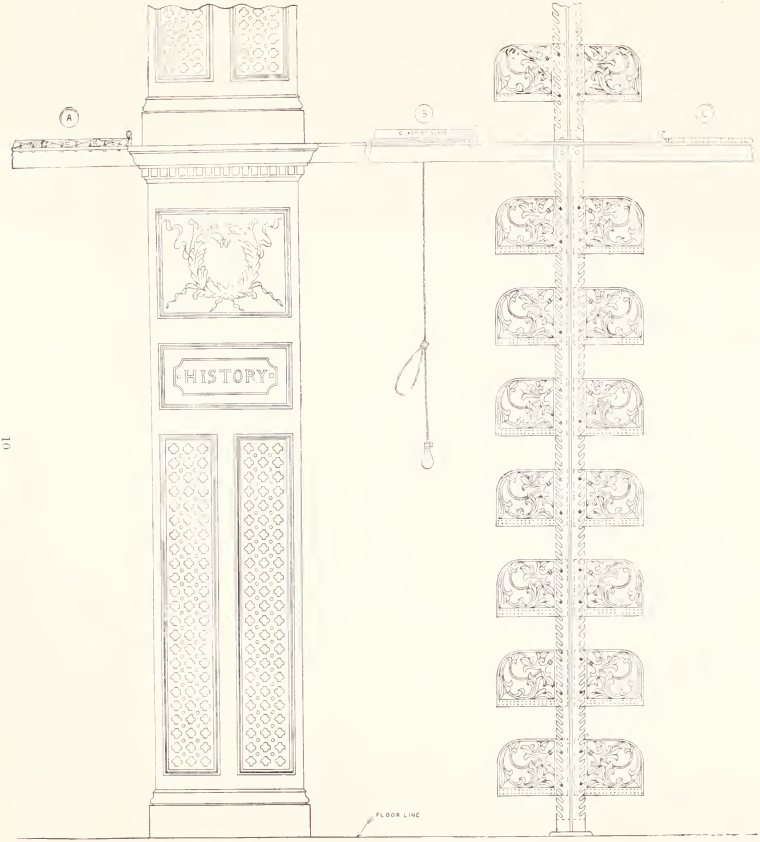


FIGURE No. 3.

End Elevation of Stack with Facia

FIGURE No. 4.

Intermediate Elevation of Stack

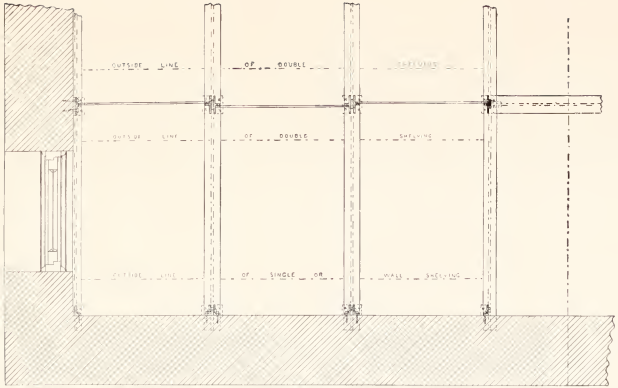


FIGURE NO. 5.

Plan of Floor Framing Combined with Standards

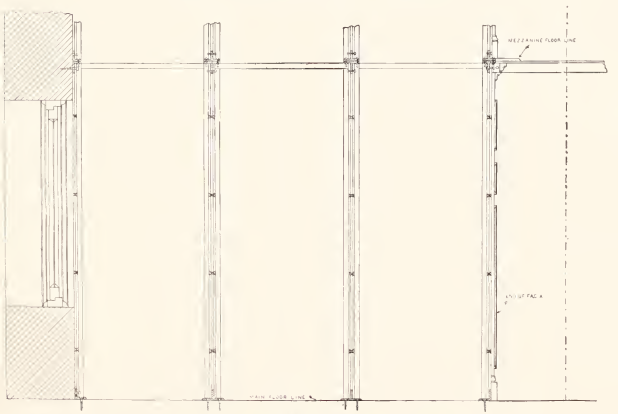
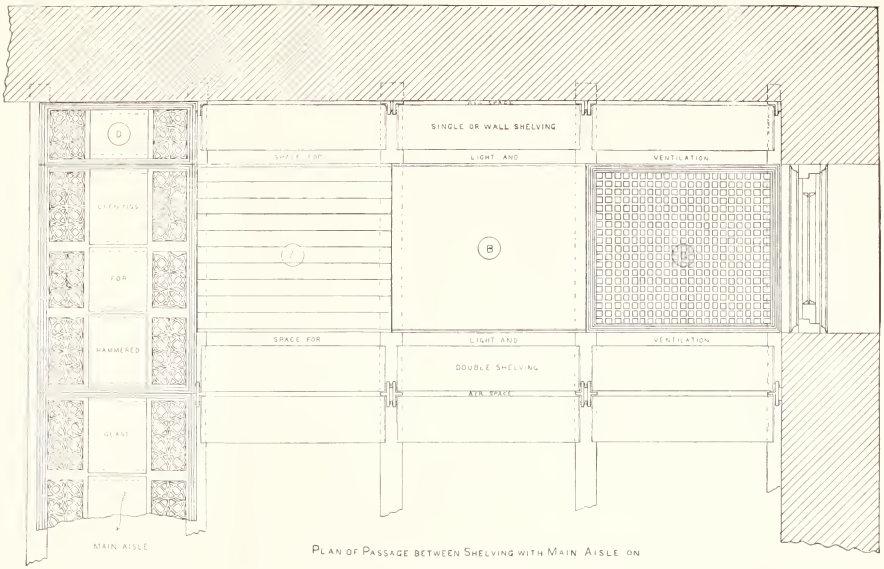


FIGURE NO. 6

Elevation of Standards Combined with Floor Framing



PLAN OF PASSAGE BETWEEN SHELVING WITH MAIN AISLE ON MEZZANINE FLOOR

FIGURE NO. 7.

Plan of passage between shelving on mezzanine flooring, illustrating four different methods of floor finish. With partially fire-proof or slow-burning construction, a wooden flooring, covered on under side with a coating of asbestos composition, is recommended (see A). When stack work is entirely fire-proof, perforated cast-iron flooring (see C) may be used. Roughened plate glass, marble or slate slabs (see B) set in angle iron frame work, cast-iron flooring with open tracery on sides (see D), having roughened plate glass through centre, or roughened plate glass set in cast-iron frames, are desirable. Any of these floorings may be constructed with a projecting edge, parallel with stacks.

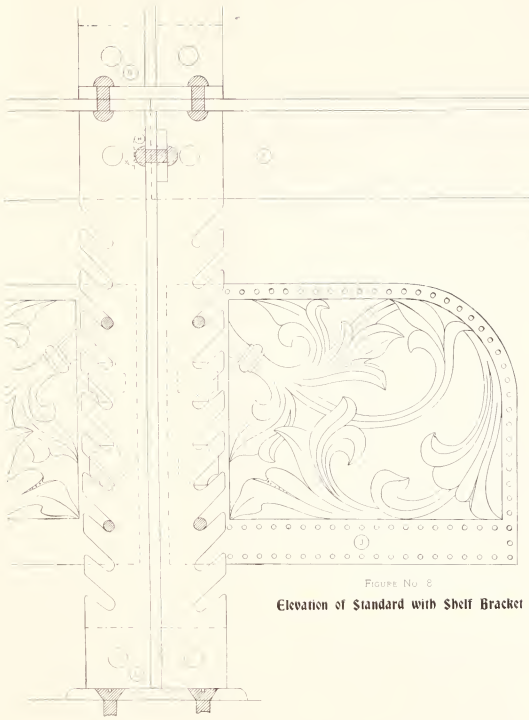


FIGURE NO. 8

Elevation of Standard with Shelf Bracket

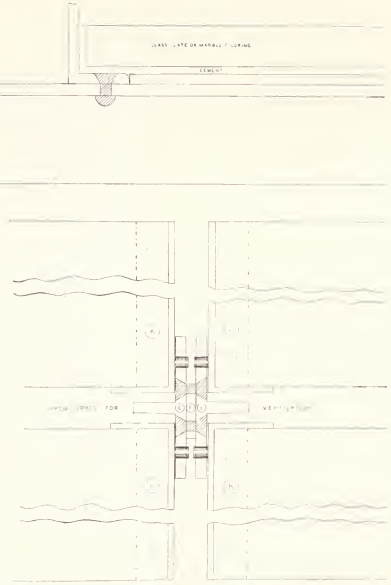
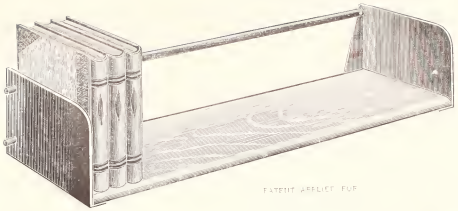


FIGURE NO. 9

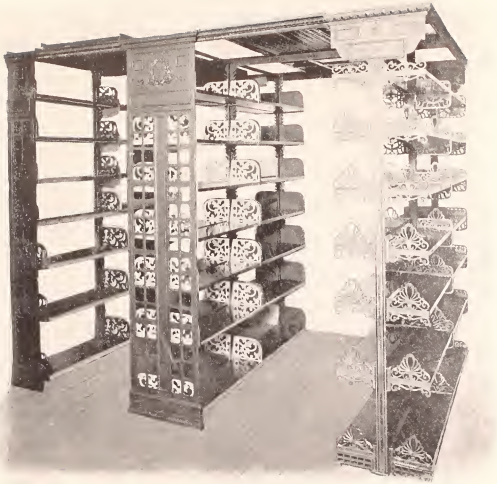
Plan of Double Standard Showing Shelving in Position



Stikeman's Improved Portable Book Shelf

THIS improved Shelf forms a complete book support or rack, which may be placed with its load of books between standards, carried about or allowed to rest upon a table, thus forming a most convenient adjunct to a library, by facilitating the handling of a number of books at a time.

In case of fire, books can be quickly removed from danger, by carrying out the entire shelf, this is impossible with any other form of shelving now in use. It is highly recommended by Architects and Librarians.



Stikeman Patent Adjustable and Absolutely Adjustable Book Stacks
as Constructed with Mezzanine Flooring

Stikeman Absolutely Adjustable Book Shelving

THE "Absolutely Adjustable" system, as illustrated on opposite page, is based on principles somewhat different from our "Adjustable" Book Shelving, the prominent features being, that each shelf is **absolutely adjustable** and the space occupied between divisions is brought to a minimum, so that the shelving may be said to be continuous from one end of stack to the other.

The standards are composed of steel channels, secured to a suitable base and set sufficiently apart to permit the insertion of a properly formed Shelf Bracket, provided with means of embracing the standard, so as to become adjustably secured thereto. The bracket consists of a perforated plate, having a flange on its inner edge, that engages the channel standard by means of a graduated threaded bar, bearing against the outer edge or side of standard, thus securing the bracket in position, and to which it may be adjusted. The threaded bar is operated entirely **from the front of the shelf,** and so avoids the displacement of any of the books.

The shelf proper is portable, resting upon projecting flanges set at right angles to the inner side of bracket, and is held in position so that it becomes impossible for the shelf to tip downwards.

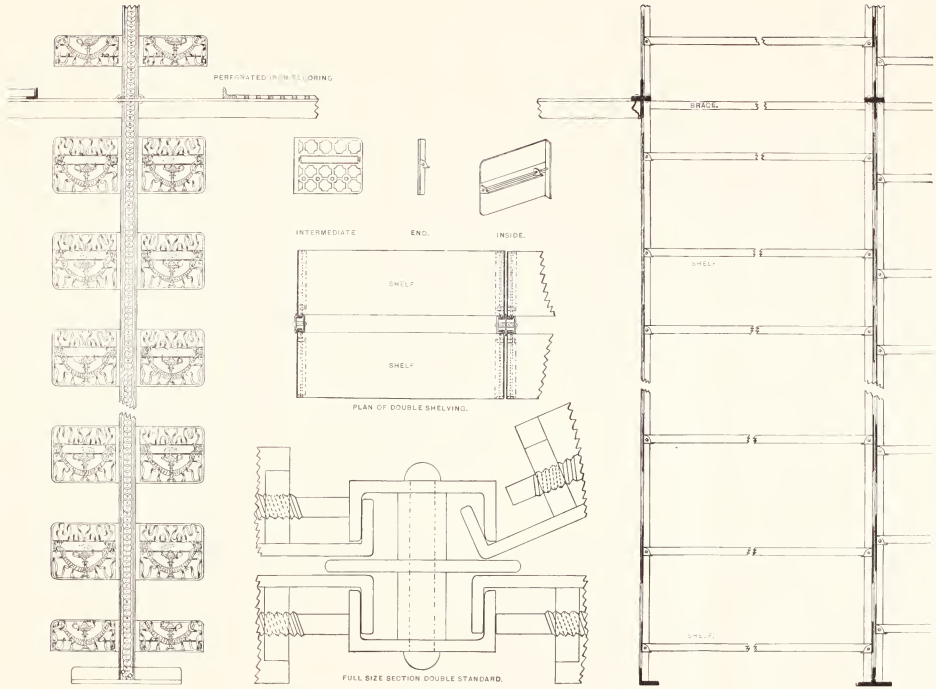
To adjust shelving, it is unnecessary to remove the brackets from the standards, but by releasing the threaded bar, the shelving may be moved upwards or downwards to the position desired, and again engaging the bar to standard. By this method, any adjustment, however slight, may be obtained.

Further shelving may be added, if required, to a stack **at any point of the standard,** without the removal or disturbing of shelves already in position, thereby increasing the shelving capacity of the stack. This saving of cost in a stack should be well considered. The methods of constructing mezzanine floorings, facilities for lighting, means of heating and ventilation, stairways, elevators, lifts, etc., are the same with this system as already given in the description on "General Considerations of Stack Building."

Although the stack throughout is constructed of iron and steel, the use of wood shelves is frequently preferred; they occupy no more space, and are more ornamental when made to harmonize with finish of room. Our systems, however, admit the use of either wood or steel shelves, as may be desired.

In comparing the cost of our Book Shelving with wooden cases, it will be found favorable when durability, light and space, and increase of shelving capacity is considered.

Special designs, with estimates, involving the use of our "Stikeman" patents, will be furnished on application.



Construction of the "Absolutely Adjustable" System. (Page 16.)

Stikeman Composite Book Shelving

THE "Composite" system (as illustrated on opposite page) varies somewhat in form from either the "Adjustable" or "Absolutely Adjustable" Book Shelving. The minor parts of our other systems are omitted, yet at the same time, is of so simple, easy and close adjustment that it may be considered absolute.

The standards are formed of patented double steel flanged bars of a novel shape, having rounded corners, with internal edges finely serrated, between which is placed a flat steel separator; this combination forming a vertical groove, to which the shelf supporting brackets are adjusted.

The brackets are composed of a vertical plate, either of a plain or ornamental design, having a horizontal flange extending from near the front to inner edge, so shaped that the serrations of the standard are engaged. At or near the top of bracket, on its inner side, a projection is formed which embraces the inside grooved part of standard.

To raise or lower the shelves and supporting brackets, it is only necessary to move the shelf slightly forward, which disengages the flange of bracket from the serrations, and again release, when brought to the desired position.

The methods of constructing mezzanine floorings, facilities for lighting, means of heating and ventilation, stairways, elevators, lifts, etc., are the same with this system, as already given in the description on "General Considerations of Stack Building."

Special designs with estimates, involving the use of our "Stikeman" patents, will be furnished on application.

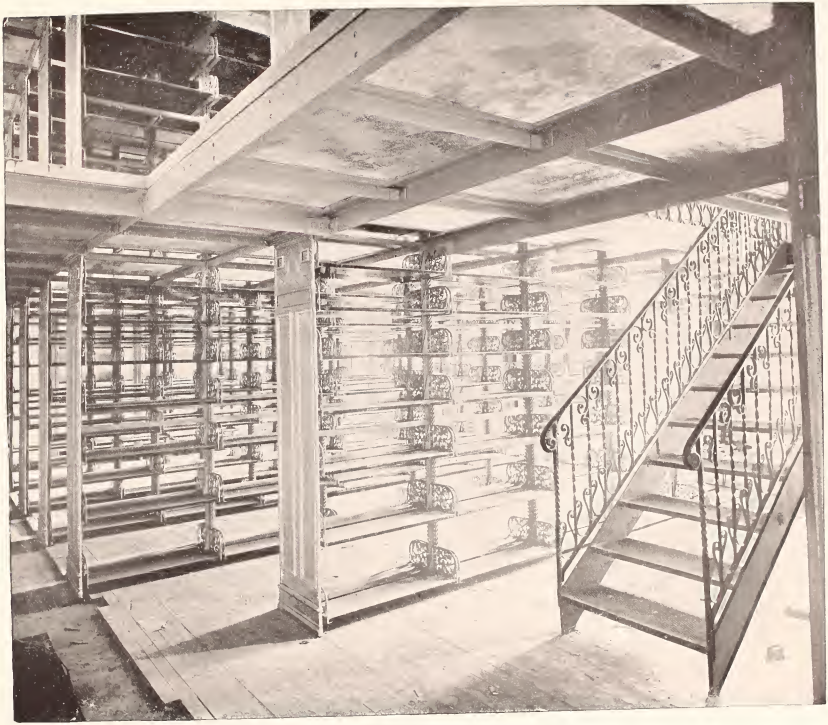
Stikeman Patent "Composite" Book Shelving

Book Stacks Erected in the St. Joseph's Seminary, at Valentine Hill, Yonkers, N. Y.

Schickel & Ditmars, Architects, N. Y.

Book Stacks Erected in St. Joseph's Seminary, at Valentine Hill, Yonkers, N. Y.

Schickel & Ditmars, Architects, N. Y.



Book Stacks Erected in the Hart Memorial Library, at Troy, N. Y.

Barney & Chapman, Architects, N. Y.

Book Stacks Erected in the Hart Memorial Library, at Troy, N. Y., Showing Stairways, End Facias and Glass Flooring

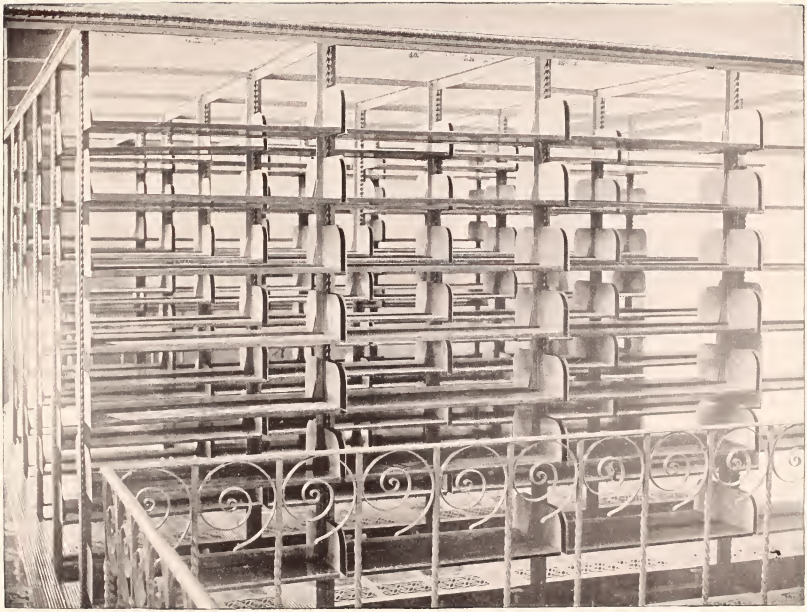
Barney & Chapman, Architects, N. Y.

Book Stacks Erected in the Somerville Public Library, at Somerville, Mass.

Loring & Phipps, Architects, Boston, Mass.

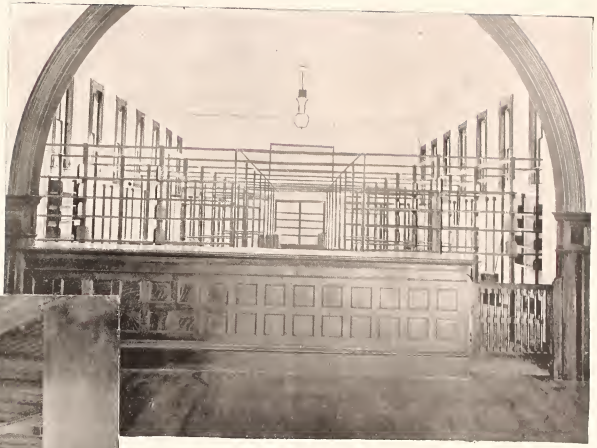
Book Stacks Erected in the State Library, Capitol Building, at Dover, Delaware

Frank R. Carswell, Architect, Wilmington, Del.



Book Stacks Erected in the Morrison-Reeves Library, at Richmond, Indiana

John A. Hasecoster, Architect, Richmond, Ind.



Book Stacks Erected in the Mark Skinner Library,
at Manchester, Vermont

Stickney & Austin, Architects, Lowell, Mass.

Book Stacks Erected in the Dyer Library,
at Saco, Maine

W. H. Clough, Architect, Boston, Mass.

Book Stacks Erected in the Lutheran Theo. Seminary Library, at Gettysburg, Pa.

J. A. Dempwolf, Architect, York, Pa.

Book Stacks Erected in the Redwood Library, at Newport, Rhode Island

Geo Rukeman

~~A. B. & W. C. Westervelt~~

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